

IN THE CLAIMS

Please amend the claims as follows:

- Claim 1 (Currently Amended): A polyurethane (A) comprising ~~as synthesis~~  
~~components~~
- a) at least one organic diisocyanate or polyisocyanate,
  - b) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one free-radically polymerizable unsaturated group and/or cationically polymerizable group,
  - c) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one capped amino group and having a molecular weight below 1000 g/mol,
  - d) if desired, at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one actively dispersing group,
  - e) if desired, at least one compound ~~containing~~ comprising at least two isocyanate-reactive groups, and
  - f) if desired, compounds other than a) to d) ~~containing~~ comprising at least one isocyanate-reactive group, the allophanate fraction being 5 to 65 mol% based on the lowest molecular weight allophanate molecule.

- Claim 2 (Currently Amended): A polyurethane (A) comprising ~~as synthesis~~  
~~components~~
- a) at least one organic diisocyanate or polyisocyanate,
  - b) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one free-radically polymerizable unsaturated group and/or cationically polymerizable group,

- c) at least one compound containing comprising at least one isocyanate-reactive group and at least one capped amino group and having a molecular weight below 1000 g/mol,
- d) 1-30 mol% of at least one compound containing comprising at least one isocyanate-reactive group and at least one actively dispersing group,
- e) if desired, at least one compound containing comprising at least two isocyanate-reactive groups, and
- f) if desired, compounds other than a) to d) containing comprising at least one isocyanate-reactive group.

Claim 3 (Currently Amended): A polyurethane (A) comprising as synthesis components

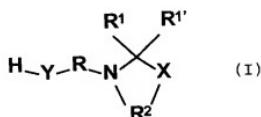
- a) at least one (cyclo) aliphatic organic diisocyanate or polyisocyanate,
- b) at least one compound containing comprising at least one isocyanate-reactive group and at least one free-radically polymerizable unsaturated group and/or cationically polymerizable group,
- c) at least one compound containing comprising at least one isocyanate-reactive group and at least one capped amino group and having a molecular weight below 1000 g/mol,
- d) if desired, at least one compound containing comprising at least one isocyanate-reactive group and at least one actively dispersing group,
- e) no compound containing comprising at least two isocyanate-reactive groups, and
- f) if desired, compounds other than a) to d) containing comprising at least one isocyanate-reactive group.

Claim 4 (Currently Amended): The polyurethane (A) according to claim 1, any one of claims 1 to 3, wherein synthesis component c) has a molecular weight below 750 g/mol.

Claim 5 (Currently Amended): The polyurethane according to claim 1, any one of the preceding claims, comprising per 100 g of compound at least 0.01 mol of unsaturated free-radically or cationically polymerizable groups and/or at least 0.01 mol of capped amino groups.

Claim 6 (Currently Amended): The polyurethane according to claim 1, any one of the preceding claims, wherein said at least one capped amino group is selected from the group consisting of open-chain aminals, cyclic aminals, ketimines, aldimines, N,O-acetals, N,O-ketals, carboxamides, sulfonamides, and amidines.

Claim 7 (Currently Amended): The polyurethane according to claim 1, any one of the preceding claims, wherein component c) has the formula (I)



where

R and R<sup>2</sup> independently are each a divalent organic aliphatic, cycloaliphatic or aromatic radical containing comprising 2 to 20 carbon atoms which is unsubstituted or substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

R<sup>1</sup> and R<sup>1'</sup> independently are each hydrogen, C<sub>1</sub>-C<sub>18</sub> alkyl, C<sub>2</sub>-C<sub>18</sub> alkyl which is uninterrupted or interrupted by one or more oxygen and/or sulfur atoms and/or by one or more substituted or unsubstituted imino groups, or are each C<sub>6</sub>-C<sub>12</sub> aryl, C<sub>5</sub>-C<sub>12</sub> cycloalkyl or a five- or six-membered heterocycle containing oxygen, nitrogen and/or sulfur atoms, it being possible for each of said radicals to be substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

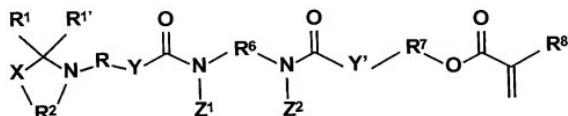
X is oxygen (-O-), unsubstituted or monosubstituted nitrogen (-N(R<sup>4</sup>)-) or >N-

NR<sup>4</sup>R<sup>5</sup>,

Y is oxygen (-O-), unsubstituted nitrogen (-N(H)-) or sulfur (-S-), and

R<sup>4</sup> and R<sup>5</sup> independently are each hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl.

Claim 8 (Currently Amended): The polyurethane according to claim 1, any one of the preceding claims, comprising at least one of the following compounds of the formula (II)



or higher homologs thereof,

where

R, R<sup>1</sup>, R<sup>1'</sup>, R<sup>2</sup>, X and Y are as defined in claim 7,

R and R<sup>2</sup> independently are each a divalent organic aliphatic, cycloaliphatic or aromatic radical comprising 2 to 20 carbon atoms which is unsubstituted or substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

R<sup>1</sup> and R<sup>1'</sup> independently are each hydrogen, C<sub>1</sub>-C<sub>18</sub> alkyl, C<sub>2</sub>-C<sub>18</sub> alkyl which is uninterrupted or interrupted by one or more oxygen and/or sulfur atoms and/or by one or

more substituted or unsubstituted imino groups, or are each C<sub>6</sub>-C<sub>12</sub> aryl, C<sub>5</sub>-C<sub>12</sub> cycloalkyl or a five- or six-membered heterocycle containing oxygen, nitrogen and/or sulfur atoms, it being possible for each of said radicals to be substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles.

X is oxygen (-O-), unsubstituted or monosubstituted nitrogen (-N(R<sup>4</sup>)) or >N-

NR<sup>4</sup>R<sup>5</sup>.

Y is oxygen (-O-), unsubstituted nitrogen (-N(H)-) or sulfur (-S-),

Y' can be as defined for Y but can also be different,

R<sup>6</sup> and R<sup>7</sup> each independently are a divalent organic aliphatic, cycloaliphatic or aromatic radical comprising 2 to 20 carbon atoms and unsubstituted or substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

R<sup>8</sup> is hydrogen, methyl, ethyl or hydroxymethyl, and

Z<sup>1</sup> and Z<sup>2</sup> can be identical or different and independently of one another are hydrogen or -(CO)-NH-R<sup>6</sup>-NCO.

Claim 9 (Currently Amended): A polyurethane dispersion comprising

- (A) a polyurethane according to claim 1 any one of the preceding claims and including synthesis comprising component d) and
- (C) if desired, one or more photochemically and/or thermally activatable initiators,
- and
- (D) if desired, further, typical coatings additives.

Claim 10 (Currently Amended): A coating composition comprising

~~either at least one said~~ polyurethane dispersion according to claim 9  
~~or at least one polyurethane (A) according to any one of claims 1 to 8 and also~~

- (C) if desired, one or more photochemically and/or thermally activable initiators,  
and  
(D) if desired, further, typical coatings additives.

Claim 11 (Currently Amended): A method of coating a substrate, which comprises radiation curing a substrate coated with said polyurethane as claimed in claim 1, and thermally treating said polyurethane a material according to any one of the preceding claims and subjecting it to thermal treatment at temperatures up to 160°C.

Claim 12 (Currently Amended): The method according to claim 11, wherein said thermally treating the thermal treatment takes place between 60 and 160°C.

Claim 13 (Currently Amended): The method according to claim 11, either of claims 11 and 12, wherein the radiation curing is conducted under inert gas.

Claim 14 (Currently Amended): The use of a polyurethane according to any one of claims 1 to 8 in a A radiation-curable coating composition comprising said polyurethane according to claim 1.

Claim 15 (Currently Amended): The use of a material according to any one of claims 1 to 10 to eat A method for coating wood, metal or plastic, said method comprising coating said wood, metal, or plastic with said polyurethane according to claim 1.

Claim 16 (Currently Amended): ~~The use of a material according to any one of claims 1 to 10 in an an~~ automotive paint or automotive topcoat material comprising said polyurethane as claimed in claim 1.

Claim 17 (New): A coating composition comprising

said polyurethane (A) according to claim 1 and

(C) if desired, one or more photochemically and/or thermally activatable initiators,

and

(D) if desired, further, typical coatings additives.

Claim 18 (New): A method for coating wood, metal or plastic, said method

comprising coating said wood, metal, or plastic with said polyurethane dispersion according

to claim 9.